

California Air Resources Board Outboard Marine Tank Public Workshop



Sacramento, California
January 30, 2008



Agenda

- Introductions
- Purpose
- Background
- Statewide Field Survey
- Comparative Emissions Testing
- Statewide Emissions Inventory
- ARB Control Strategy
- Rulemaking Schedule
- Closing Comments

Purpose

- Discuss the status of the ARB OMT proposal.
- Share field survey and emissions testing results.
- Clarify ARBs OMT control strategy.
- Present the rulemaking schedule.

Background

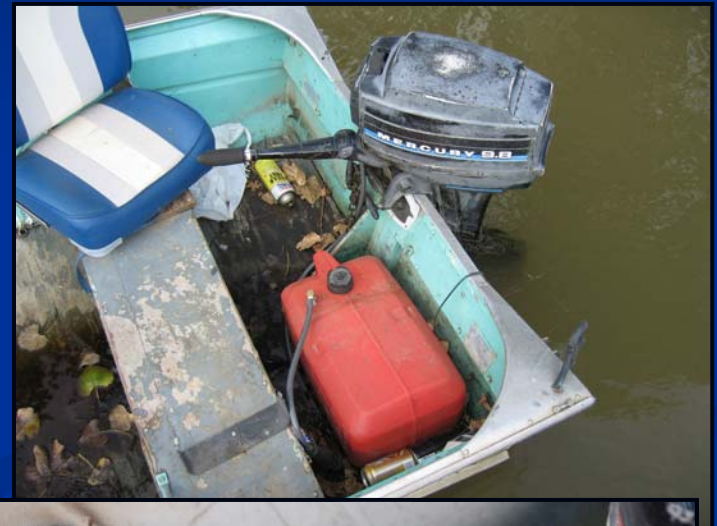
- April 2007:
 - ARB and US EPA announce separate OMT regulatory proposals.
 - ARB began an evaluation of both proposals.
 - Key differences:
 - ARB hose assembly strategy,
 - ARB diurnal test with CERT fuel, and
 - US EPA steady-state temperature test using CE-10.

Background (cont.)

- May through December 2007:
 - ARB Field Survey to quantify hose assembly problems.
 - ARB emissions testing to compare different test procedures.
- Present:
 - ARB modifying its proposal.

Statewide Field Survey

- Designed to examine consumer assembly problems including:
 - Improper use of hose clamps.
 - Loose or missing components.
 - Missing Tank Caps.
- 131 tanks surveyed throughout California.



Statewide Field Survey (cont.)

■ Field Survey Results (131 total)

CATEGORY	# OBSERVED	
3 gallons	57	44%
6 gallons	67	51%
12 gallons	7	5%
Plastic	107	82%
Metal	24	18%
Fill Caps	128	98%
No Fill Caps	3	2%

CATEGORY	# OBSERVED	
Factory Clamps*	94	--
Hose Clamps*	59	--
Zip Ties*	2	--
Vent Open	92	70%
Vent Closed	39	30%
New Condition	120	92%
Old Condition	11	8%

**Some assemblies used more than one type of clamp.*

Statewide Field Survey (cont.)

■ Findings:

- Very few instances of assembly problems.
- Consumers reported that field repairs and assembly are relatively simple to perform.
- ARB will not pursue a hose-assembly requirement.
- Components may be sold individually or as a complete hose-assembly system.

Comparative Emissions Testing

- Comparative study.
- Steady-State (28°C) vs. Diurnal (65-105-65°F) tests.
- Ability to detect a leaking tank.



Comparative Emissions Testing (cont.)

■ Equipment:

- 5 tanks tested.
- All previously verified as leaking.

■ Protocol:

- Calibrated SHED used to conduct testing.
- CE-10 test fuel at 50% fill level.
- Same tanks used for both tests.

■ Results:

- Steady-State Temperature: 5.7 grams/gal/day average
- Diurnal Temperature: 39.3 grams/gal/day average



Comparative Emissions Testing (cont.)

■ Findings:

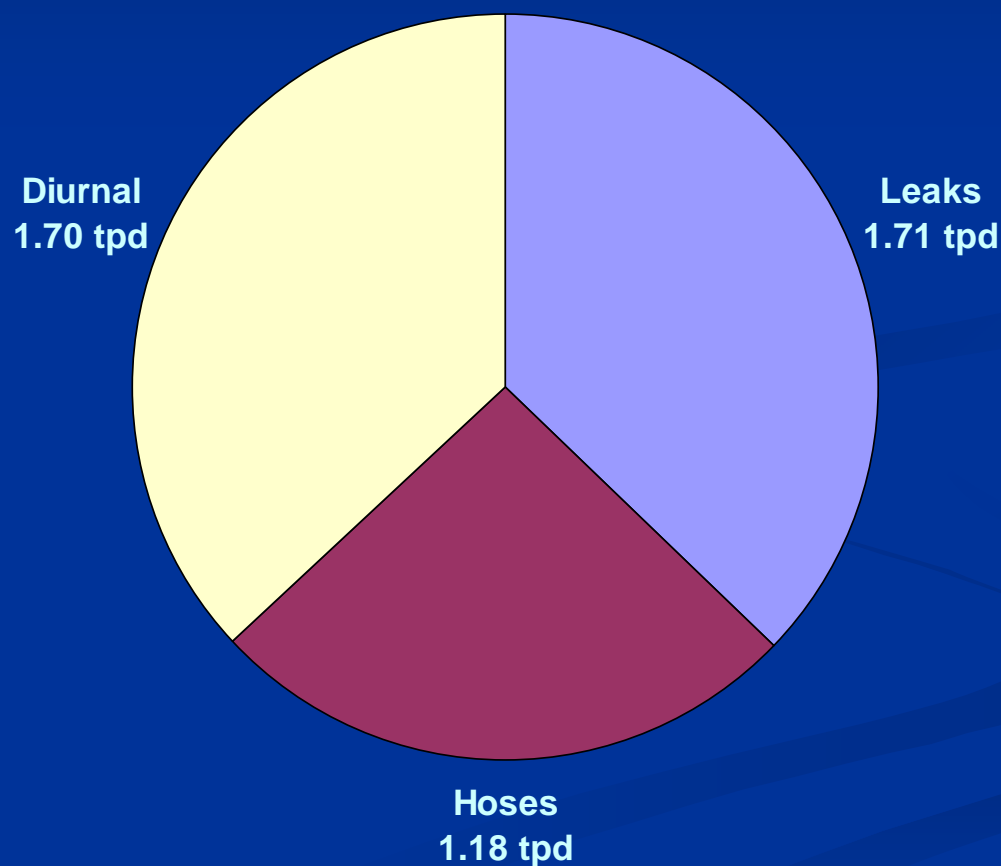
- Diurnal testing produces more emissions and replicates in-use conditions.
- Either test can identify a leaking tank.

Statewide Emissions Inventory

- Telephone survey and emissions test data used to develop the statewide emissions inventory.
- Telephone survey results posted on OMT web page.
- Emissions data collected using diurnal test method (gathered in 2006-2007).
- Statewide emissions estimated at 4.59 tons/day.

Statewide Emissions Inventory (cont.)

2010 Uncontrolled Emissions (4.59 tpd)



ARB Control Strategy

- Identical ARB and US EPA standards.
- Any test results used to meet US EPA requirements will fulfill ARB requirements.
- Implementation dates scheduled to coincide.
- Manufacturers would need to submit an application to ARB for certification prior to selling.
- California will have a simplified enforcement program.

Rulemaking Schedule

- Now until March 2008:
 - Finalize draft regulation
- March 2008: Next Public Workshop
 - Present draft regulatory package
 - Finalize emissions inventory
 - Request for additional comments
- July 2008: 45-day Public Notice
- September 2008: Board Hearing

Closing Comments

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